

All this is in perfect accordance with the particulars quoted above from Tycho Brahe's letter to Kepler of 1599 December 9, and if the figures given by Kepler in the *Paralipomena* were copied from Origanus, this mistake was Kepler's own, and not Tycho's, as the latter concluded from the diagrams made at Uraniborg that the eclipse began for that place at $10^h 10^m$ and ended at $12^h 19^m$.

Note on the Proper Motion of the Star L L 38239.

By J. L. E. Dreyer.

The magnitude of this star is given as 7.6 in the *Durchmusterung*, and it follows about 1^m after the Dumb Bell Nebula. I am not aware that the Proper Motion has been noticed before. The following positions are for 1890.0 and are referred to Auwers' fundamental system; Lalande's and Bessel's observations have been reduced anew by Asten's and Luther's tables.

Lalande 38239	^h 19 ^m 55 ^s 58.35	+ 22° 25' 25.5"	(1 obs.)	1796.6
Bessel (W. 1792)	58.72	13.1	(1 obs.)	1825.7
Rümker 7900	58.63	8.3	(4 obs.)	1840
Bonn (Beob. Bd. vi.)	58.79	3.8	(3 obs.)	1862.6
Berlin Zone	58.76	24 59.4	(2 obs.)	1881.7
Copenhagen, Pechüle	58.79	56.5	(2 obs.)	1893.7

The last observation was kindly made at my request. Lalande has two wire-transits in good accordance *inter se*. A proper motion = $+0^s.0032$ and $-0''.252$ represents these observations as follows :—

Lalande	^h 19 ^m 55 ^s 58.65	+ 22° 24' 62.0"
Bessel	58.92	56.9
Rümker	58.79	55.7
Bonn	58.88	56.9
Berlin	58.79	57.3
Copenhagen	58.78	57.4

Armagh Observatory,
1894 May.

A New Variable Star of Type IV. By the Rev. T. E. Espin, M.A.

On the night of 1893 September 16, while sweeping on the confines of *Lyra* and *Cygnus*, I came upon a fine red star which was found to be missing in *Argelander*. The place of this star for 1855 is

R.A. $19^h 15^m 2^s.7$

Decl. $+37^\circ 36' 6$

The place depending on D.M. $+37^\circ 34' 20$.

The following are my observations of the star :—

1893 Sept. 16, Mag. 9.0

Nov. 13, Mag. 9.0

On the first of these nights the spectrum was believed to be Type IV., but its faintness made me feel some uncertainty about it. On March 29 I set for this star in strong twilight, and was at once struck by its increased brilliancy. I rated it 8.3, and found the bands quite obvious, even in the dawn. On April 10 I set for it again, and rated it 8.5. The spectrum was found to be Type IV., but band No. 9 of Dunér's nomenclature is of such a size and intensity as to cause the spectrum to appear a mere fragment. With careful attention I could make out band No. 6, but as faint as No. 9 was strong. The first appearance of the spectrum was unique, as it appeared continuous, but with the least refrangible end completely absorbed. The telescope was turned immediately afterwards upon *Es-Birm* 608, a fourth-type star, somewhat brighter, and the contrast with the perfectly normal Type IV. spectrum was very striking. Unfortunately a temporary derangement of the second spectroscope prevented fuller observation.

Towlaw, Darlington:

1894 April 11.

Note on the Red Spot of Jupiter. By Joseph Gledhill, Bermerside Observatory, Halifax.

This object was carefully observed whenever seen on the disc. The whole outline was never steadily seen between 1893 January and 1894 March. No trace of colour was ever seen within the faint elliptic outline. Sometimes the following end of the ellipse was better seen than the preceding end; at other times the two ends appeared stronger than the middle part. The best view was obtained on 1893 December 23, when the whole outline was distinctly seen at moments of best definition; the spot was then not far from the western limb. It was last seen on 1894 February 9, as a very faint elliptic outline without colour.